

PART I - SECTION C
DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

C.1 BACKGROUND

The Next Generation of Air Transportation (NextGen) is the FAA foundation for the long term transformation of the National Airspace System (NAS). NextGen will leverage new technology to enhance aviation safety while improving the efficiency and effectiveness of the airspace. Such technology will utilize the automation capabilities of both ground and airborne automation system operations in a collaborative manner with shared responsibilities allocated between pilots and air traffic managers. A significant amount of research analysis has been identified and must be completed to ensure operational human factors issues related to NextGen operational procedure development are identified, understood, and addressed. High fidelity simulation of the impacts of NextGen programs on cockpit operations is an invaluable tool in providing insight into these problems and helps to identify issues that may occur as a result of changes to stakeholders' roles and responsibilities.

Flight Standards Service, Flight Technologies and Procedures Division, AFS-400 provides cockpit simulation capabilities to multiple lines of business', both within the FAA and external to the agency. The Airbus 330/340 and Boeing 737-800 Level D simulators are used to support evaluations of current operations as well as providing a platform to support the evaluation of the airborne operator impacts to proposed NextGen concepts and solution sets. The simulators must undergo technical refresh and equipment upgrades to continue serving its purpose in analyzing any proposed near term operational improvement impacts on cockpit operations, as well as, the future transformations to both air and ground operations that will be brought about by NextGen enhanced services and operational capabilities.

C.2 APPLICABLE DOCUMENTS:

C.2.1 References

The listed documents are references to be used as required when performing services under this SOW. Additional documents may be identified in the individual project assignments. Latest revision of documents will be used.

FAR Part 121, Appendix H (Level D) in accordance with International Qualification Test Guide (IQTG) Level 2 as defined by International Civil Aviation Organization (ICAO) Manual of Criteria for the Qualification of Flight Simulators (Doc 9625-AN/938), first edition, 1995, subject to availability of suitable data.

FAR Part 60.

AC 120-40C (draft) Airplane Simulator Qualification

C.2.2 Other Documents

a. The Government will provide electronic or hard copies of all other documents as requested by the contractor. Documents provided with the simulators: parts list, operating manuals, system specifications, aircraft specifications, wiring diagrams, etc. The contractor will also have access to the simulator library that contains manuals, technical documents, drawings, etc that is located in the computer room.

b. Requests for copies of unique FAA developed documents should be addressed to the Contracting Officer's Technical Representative (COTR) or Contracting Officer (CO). Requests should fully identify material desired and cite the contract number.

c. Copies of the Acquisition Management System clauses are available in the Federal Aviation Administration Acquisition System Toolset (FAST). The on-line Internet address of FAST is: <http://FAST.faa.gov>.

d. Copies of American National Standards Institute (ANSI) ASQC-Q-9001-1994 and ISO 9000-3 can be obtained from the following source: American Society for Quality Control 611 East Wisconsin Avenue P.O. Box 3005; Milwaukee, Wisconsin 53201-3005. Phones: (414) 272-8575 or (800) 248-1946. The Fax is: (414) 272-1734

C.3 GENERAL REQUIREMENTS

The contractor shall provide support for requested technical refresh initiatives for the Airbus 330/340 and B737-800 Level D Simulators on as ordered basis. Examples of initiatives include, but are not limited to, the following:

C.3.1 Incorporate simulator systems to be consistent with the commercial cockpits and avionics equipage that are operational in airspace delegated to the United States.

C.3.2 Incorporate currently available and prototype flight management systems; cockpit display systems, including LCD head-up-display (HUD); and cockpit navigation and interface systems.

C.3.3 Incorporate currently available and prototype cockpit weather display systems and simulate currently available and prototype cockpit interfaces for weather information.

C.3.4 Incorporate currently available and prototype cockpit surveillance display systems; cockpit surveillance information interfaces; and share information with simulated ground based Air Traffic Control (ATC) systems in accordance with existing FAA system interface standards.

C.3.5 Incorporate current and prototype ground/air data link with simulated ground based ATC systems in accordance with existing FAA data link system interface standards.

C.3.6 Incorporate current and prototype synthetic vision technologies on cockpit display systems.

C.3.7 Incorporate current and prototype navigation systems used to evaluate technology enhancements.

C.3.8 Incorporate aerodynamic model specifications for emerging aircraft expected to be operational in 2016.

C.3.9 Integrate with proposed NAS ground automation systems

C.3.10 Applied research on aircraft capabilities.

C.3.11 Upgrade simulator software, computers, and instructor stations

As directed by Delivery Order, the contractor shall procure, install, integrate, test, and ensure certification of new/replacement simulator equipment, systems, and/or software.

C.4 TASK REQUIREMENTS

The technical refresh projects/equipment upgrades will be authorized by separate Delivery Order (DO). Prior to authorization, the CO will request the contractor to submit a technical and a cost proposal based on the Government's requested requirements. The cost proposal shall be in sufficient detail to determine cost reasonableness. It shall include a breakout of major tasks by labor category, estimated hours, and costs (i.e. design, software development, installation, tech pubs, program management, manufacturing, etc.). Proposal shall include a breakout of material costs and the basis for the costs (vendor quote, negotiated price, catalog item, etc.). Travel shall be estimated separately to include estimated trips, location, duration, number of people, etc. In addition, the technical proposal shall include a ready to install and install timeline (i.e., time to be ready and how long installation takes). Any additional information required in the proposals will be addressed in the Request For Offer (RFO).

The DO will be issued by the CO and will include a SOW, delivery schedule, description of deliverables (data, spare parts, software, training, technical publications, etc.), prices, and any terms and conditions unique to the DO.

Delivery schedules shall incorporate time for customs clearances of parts, baseline/operational tests, and post installation testing time for the FAA.

C.5 TECHNICAL SUPPORT

On an as ordered basis, the contractor shall have the capability to dispatch program management; engineering and technical support personnel to the Mike Monroney Aeronautical Center, Oklahoma City to provide technical assistance and/or support before or after upgrades or new aircraft/simulator systems are contemplated or installed. Technical Support labor shall be accomplished on a fixed-price labor hour basis in accordance with the rates in Section B of the contract.

C.6 OTHER DIRECT COSTS/REIMBURSABLE MATERIALS

As directed and authorized by the CO and COTR, any additional supplies, equipment, and materials purchased in support of the simulators shall be reimbursed at actual costs incurred. Other direct costs may include parts, tools, manuals, data, or other program-related items.

C.7 QUALITY CONTROL

The contractor shall be solely responsible for the quality products and services provided. The contractor shall establish and maintain a quality control program for the furnishing of supplies and services. This program shall include a controlled plan of events integrating all necessary procedures, controls, inspections, and tests required to substantiate quality of service and product as stated in the contractor's approved Quality Assurance Plan. The contractor shall submit their Quality Assurance Plan for this requirement to the CO for approval within 30 days after contract award.

C.8 PROGRAM MANAGEMENT

The contractor shall maintain an organization to manage this contract. The contractor shall assign a dedicated Program Manager (PM) for each DO to organize, plan, schedule, implement, control, analyze, and report on all elements of the contract. The PM shall have sufficient corporate authority to direct, execute, and control all elements of the program. The types of tasks include: technical, business and administrative planning, organizing, directing, coordinating, controlling and approval actions, staffing, data management, and subcontract management. The PM shall be prepared at all times, given reasonable notice, to present and discuss the current status of the project. Prior to a change of DO PM the contractor

shall notify the FAA in writing with the date of the proposed change, the name of the new PM, and the contact information.

C.9 PROJECT STATUS REPORT

For each technical refresh project, the contractor shall provide a monthly status report electronically by the 10th calendar day to the COTR, CO, and DO designated FAA Manager. The report shall describe the work accomplished during the reporting period, discuss problems encountered and corrective action taken, pending issues, and a schedule update preferably in Microsoft Project.

C.10 TRAVEL

Travel may be required associated with the tasks above. Travel will be defined and approved in advance of actual travel performance by the CO and COTR. The travel request shall be in writing (email is acceptable). Travel expenses shall be reimbursed in accordance with Federal Travel Regulations, provisions, and clauses of the contract.

C.11 GOVERNMENT FURNISHED EQUIPMENT (GFE)

For each technical refresh project, the Government may provide hardware and/or software during the period of performance to the contractor to complete assigned tasks. The FAA shall provide the contractor with access to or copies of specialized software or databases required for task performance.

The Government is entitled to retain hardware/software media/tools provided as GFE as stated herein or purchased under the Other Direct Costs line item of the Delivery Order.

Any items provided to the contractor by the Government shall be returned within a reasonable timeframe or the timeline provided in the DO.

C.12 GOVERNMENT FURNISHED FACILITIES, PROPERTY AND SERVICES

The Government may provide on-site contractor personnel with the following services and equipment needed to conduct routine tasks: all necessary utilities, telephones and telephone service, desk space, and some office equipment on a shared-use basis with Government employees.